In the Claims:

Amendments to the claims are reflected in the following listing, which replaces any and all prior versions of claims in the present application:

CLAIM LISTING

1. (Currently Amended) A system for dispensing hydrogen gas, said system comprising:

a hydrogen source configured to provide diatomic hydrogen gas;

a pressurizing apparatus configured to obtain ~~the~~ a result of ~~the~~ said diatomic hydrogen gas being pressurized;

~~at least one~~ a pressure vessel configured to store said diatomic hydrogen gas, said pressure vessel being configured in the shape of a cylinder oriented substantially vertically and having a top ~~end~~ portion and a bottom ~~end~~ portion; said bottom portion of said pressure vessel having a substantially sealed secondary containment forming an interstitial space between said bottom portion and said secondary containment; and

piping configured to convey ~~the~~ said diatomic hydrogen gas ~~at least~~

from said hydrogen source, and

to said pressure vessel.

2. (Original) The system of claim 1, said system being configured to refuel vehicles that consume substantially pure compressed hydrogen gas, the vehicles having at least one of an internal-combustion engine and a fuel cell.

3. (Original) The system of claim 1, said system being configured to refuel internal-combustion engine powered vehicles that consume a mixture comprising hydrogen gas and at least one other flammable gas.

4. (Original) The system of claim 3, said flammable gas being natural gas, said system being configured to dispense at least a plurality of substantially different mixture ratios of hydrogen gas and natural gas.

5. (Original) The system of claim 1 comprising a plurality of said pressure vessels, each said pressure vessel being a cylinder oriented with a substantially vertical axis.

6. (Currently Amended) The system of claim 1 further comprising ~~at least one~~ a vent pipe configured to vent ~~the~~ said diatomic hydrogen gas to the atmosphere at least one of near ~~or~~ and above said top ~~end~~ portion, said vent pipe being oriented with a substantially vertical axis.

7. (Original) The system of claim 6, said piping comprising at least one supply pipe configured to carry the hydrogen gas to the pressure vessel, said supply pipe being connected to said pressure vessel substantially near said top ~~end~~ portion of said pressure vessel, said supply pipe being at least partially located inside said vent pipe.

8. (Currently Amended) The system of claim 1, wherein said pressure vessel having all penetrations within the top quarter of said pressure vessel, and said interstitial space being ducted to a vent pipe configured to vent said hydrogen gas to the atmosphere at least one of above and near said top portion of said pressure vessel.

9. (Original) The system of claim 1, said bottom ~~end~~ portion of said pressure vessel being below grade.

10. (Currently Amended) The system of claim ~~8~~ 1, ~~at least said bottom end of said pressure vessel having secondary containment forming an interstitial space between at least said bottom end and said secondary containment,~~ wherein said interstitial space being ducted to a vent pipe configured to vent ~~the~~ said diatomic hydrogen gas to the atmosphere at least one of near ~~or~~ and above said top ~~end~~ portion of said pressure vessel.

11. (Original) The system of claim 1, said hydrogen source being a hydrogen generator configured to generate the hydrogen gas.

12. (Previously presented) The system of claim 11:

said hydrogen generator comprising at least one electrolysis unit configured to generate the hydrogen gas by electrolysis of water;

said pressurizing apparatus comprising at least one pump configured pressurize the water.

13. (Previously presented) The system of claim 11, said hydrogen generator comprising at least one reformer configured to generate the hydrogen gas.

14. (Original) The system of claim 13:

said reformer being configured to reform natural gas;

the system comprising at least one compressor;

the system being configured to dispense at least one mixture of hydrogen gas and compressed natural gas.

15. (Previously presented) The system of claim 1, the system being substantially shop assembled and certified.

16. (Original) A system for handling hydrogen, said system comprising hydrogen handling equipment, said equipment including at least piping, said equipment being at least partially contained within a structure, said structure having at least one wall, a floor, and an open top, at least one said wall being configured to lean away from said equipment so that said open top has a larger area than the area of said floor.

17. (Original) The system of claim 16, said hydrogen being gas, said system being configured to refuel vehicles that consume substantially pure compressed hydrogen gas.

18. (Original) The system of claim 16, said hydrogen being gas, said system being configured to refuel internal-combustion engine powered vehicles that consume a mixture comprising hydrogen gas and at least one other flammable gas.

19. (Original) The system of claim 18, said system being configured to dispense at least a plurality of substantially different mixture ratios of hydrogen gas and natural gas.

20. (Original) The system of claim 16, said structure having at least two said walls configured to lean away from said equipment.

21. (Original) The system of claim 16, said equipment further comprising at least one hydrogen generator configured to generate the hydrogen.

22. (Original) The system of claim 16, said hydrogen being gas, said equipment further comprising at least one compressor configured to compress the hydrogen gas.

23. (Original) The system of claim 16, said hydrogen being gas, said equipment further comprising at least one pressure vessel configured to store the hydrogen gas.

24. (Original) The system of claim 23:

said equipment further comprising a pressurizing apparatus; and

said system being configured to dispense at least a plurality of substantially different mixture ratios of hydrogen gas and natural gas.

25. (Original) The system of claim 23, said pressure vessel being a cylinder oriented with a substantially vertical axis, said pressure vessel having a top end and a bottom end.

26. (Currently Amended) The system of claim 16, wherein said equipment further ~~comprising~~ comprises a pressurizing apparatus and at least one of a pressure vessel and a hydrogen generator.

27. (Original) A system for handling hydrogen, said system comprising hydrogen handling equipment including at least piping and valves, said equipment being contained within a substantially sealed enclosure, said enclosure being vented to the atmosphere through a vent pipe terminating at a location higher than said equipment.

28. (Original) The system of claim 27, said enclosure being cylindrical.

29. (Original) The system of claim 27, said enclosure and said vent pipe being configured to withstand the detonation of a stoichiometric mixture of hydrogen and air in said enclosure.

30. (Original) The system of claim 27 further comprising a fire suppression system configured to introduce a substantially inert gas into said enclosure.

31. (Original) The system of claim 27, said system being configured to refuel vehicles that consume substantially pure hydrogen.

32. (Original) The system of claim 27, said hydrogen being gas, said system being configured to refuel internal-combustion engine powered vehicles that consume a mixture comprising hydrogen gas and at least one other flammable gas.

33. (Original) The system of claim 32, said system being configured to dispense at least a plurality of substantially different mixture ratios of hydrogen gas and natural gas.

34. (Original) The system of claim 27, said hydrogen being gas, said system being configured to dispense hydrogen gas into a stationary natural gas system.

35. (Original) The system of claim 27, the hydrogen being hydrogen gas, said equipment further comprising at least one compressor configured to compress the hydrogen gas.

36. (Original) The system of claim 27, the system further comprising at least one hydrogen gas storage pressure vessel, said pressure vessel being oriented with a substantially vertical axis, said pressure vessel having a top end and a bottom end.

37. (Original) The system of claim 36 having a plurality of said hydrogen gas storage pressure vessels, each said pressure vessel being oriented with a substantially vertical axis, and each said pressure vessel having at least one control valve piped thereto, the system having a separate said enclosure for said at least one control valve for each pressure vessel.

38. (Original) The system of claim 27, at least some of said piping being located within said vent pipe.

39. (Currently Amended) The system of claim 27, said system being substantially shop assembled and tested.

40. (Original) The system of claim 27:

said hydrogen being gas, said system being a stationary facility configured to refuel vehicles that consume hydrogen gas;

said enclosure and said vent pipe being configured to withstand the detonation of a mixture of hydrogen and air in said enclosure;

said system comprising a pressurizing apparatus configured to obtain the result of the hydrogen gas being pressurized;

said system comprising at least one pressure vessel configured to store hydrogen gas, said pressure vessel being a cylinder oriented substantially vertically, said pressure vessel having a top end and a bottom end;

said system further comprising at least one supply pipe configured carry the hydrogen gas to at least one said pressure vessel, said supply pipe being connected to said pressure vessel;

said system further comprising a dispenser configured to dispense the hydrogen gas to the vehicles; and

said system further comprising a dispensing pipe configured to carry the hydrogen gas to the dispenser.

41. (Currently Amended) A system for dispensing hydrogen gas, said system comprising:

a hydrogen source configured to provide diatomic hydrogen gas;

a pressurizing apparatus configured to obtain the result of ~~the~~ said diatomic hydrogen gas being pressurized;

~~at least one~~ a pressure vessel configured to store said diatomic hydrogen gas; said pressure vessel having a substantially sealed secondary containment; and

piping configured to convey ~~the~~ said hydrogen gas ~~at least~~ from said hydrogen generator and to said pressure vessel.;

~~said system being shop assembled and tested as a unit.~~

42. (Original) The system of claim 41, said system being configured to refuel vehicles that consume hydrogen gas.

43. (Original) The system of claim 41, said hydrogen source being a hydrogen generator, said pressurizing apparatus providing at least half of the pressurization before the hydrogen is generated.

44. (Previously presented) A system for handling a flammable substance, said system comprising flammable substance handling equipment including piping and valves, said equipment being contained within a substantially sealed enclosure, said enclosure being vented to the atmosphere through a vent pipe terminating at a location higher than said equipment.

45. (New) The system of claim 5, wherein each of said plurality of said pressure vessels is separated by interstitial space.

46. (New) The system of claim 41, wherein said substantially sealed secondary containment includes a vent pipe configured to vent said diatomic hydrogen gas to the atmosphere.